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Increasing Group Entitativity: Linguistic Intergroup Discrimination in the Minimal Group Paradigm

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Previous research has shown the strength of the linguistic intergroup bias across different intergroup settings. However, there is no evidence of linguistic discrimination within minimal groups. This experiment aimed to shed light on the phenomenon of linguistic intergroup discrimination in a minimal group setting, and to investigate the impact of group entitativity on this bias. Four group entitativity conditions were created by altering the mere categorization condition toward less entitativity and toward more entitativity. Participants were asked to describe the choice allegedly made by another participant in allocating resources to ingroup and outgroup members. Results showed an overall linguistic bias, whereby ingroup behaviors were described more positively and abstractly than outgroup behaviors. Increasing group entitativity resulted in increasingly biased outgroup descriptions, which in the most entitative condition revealed a predominant use of negative abstract terms.

KEYWORDS group entitativity, linguistic discrimination, minimal groups

In the past two decades, much attention has been paid to the interplay between language and social cognition. One of the most productive theoretical frameworks for the study of social language is the *linguistic category model* (LCM), a taxonomy of interpersonal terms ordered along a concreteness–abstractness continuum, developed by Semin and Fiedler (1988). The LCM has been applied successfully to the study of intergroup stereotypes and prejudice, revealing its power in displaying how social language contributes to intergroup discrimination. Maass, Castelli, and Arcuri (2000), in their review on explicit and implicit measures of prejudice, contended that language constitutes an unobtrusive powerful measure of intergroup biased attitudes, as it is documented by a consistent corpus of evidence revealing the existence of the *linguistic intergroup bias* (LIB) in a variety of intergroup settings (Maass, Ceccarelli, & Rudin, 1996; Maass, Milesi, Zabbini, & Stahlberg, 1995; Maass, Salvi, Arcuri, & Semin, 1989; Rubini & Semin, 1994; Von Hippel, Vargas, & Sekaquaptewa, 1997; among others).

However, studies have yet to demonstrate the existence of linguistic discrimination within minimal groups created artificially in the laboratory. Maass (1999) proposed that the absence of linguistic intergroup bias within minimal

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groups is due to the fact that these artificial aggregations lack a history of previous interactions or of well defined intergroup conflicts. Nevertheless, we believe that to the extent that group members face evidence of intergroup behaviors (even 'minimal behaviors') linguistic intergroup differentiation should take place in the context of groups originating from minimal conditions.

Thus, the aim of the experiment reported in this article is twofold: to test for the presence of linguistic discrimination in minimal group conditions, and to assess the power of group entitativity to affect linguistic intergroup discrimination (Gaertner & Schopler, 1998; Horwitz & Rabbie, 1982; Rabbie & Lodewijkx, 1996). In order to achieve our goals, we will focus first of all on the LCM and the LIB and subsequently on the studies addressing the issue of group entitativity.

The LCM

Studies on the linguistic intergroup bias, that is people's tendency to vary systematically the level of abstraction used to describe ingroup vs. outgroup behaviors, have employed the classification of predicates and adjectives proposed by the LCM of Semin and Fiedler (1988, 1991, 1992), which distinguished four levels of abstraction. The most concrete predicates are descriptive action verbs, such as 'to kiss', which describe specific behavioral events without including an interpretation or evaluation. More abstract are interpretative action verbs, such as 'to help'. Like descriptive action verbs, they describe specific events but they refer to more general classes of behaviors. The third category is formed by state verbs, that do not refer to actions but to psychological states (e.g. 'to love'). The most abstract terms are adjectives, that generalize across specific events and object and describe only the actor of a social event (e.g. 'John is clever').

The LIB

Research on the LIB has shown that the linguistic abstraction used to reproduce social events varies systematically as a function of the group membership of the protagonist of a social event. On the one hand, a socially desirable behavior performed by an ingroup member will be described in relatively abstract terms, whereas the same behavior shown by an outgroup member will be described in relatively concrete terms. Conversely, socially undesirable behaviors will be described in relatively concrete terms when performed by an ingroup member, but in abstract terms when performed by an outgroup member.

The general interpretation of these findings is that abstract language allows the generalization of behavior across different situations and time, whereas concrete language contextualizes it. There are also two interpretations of what underlies the LIB, a motivational and a cognitive one. The emphasis in the motivational explanation relies on the assumption that the phenomenon results from the need to protect or enhance one's social identity (Tajfel & Turner, 1979). On the other hand, the cognitive explanation focuses on expectancies. Since expected behaviors are by their nature most stable, they invite relatively abstract characterization, while unexpected ones invite more concrete descriptions (Maass et al., 1995; Wigboldus, Semin, & Spears, 2000).

A particularly interesting aspect of this linguistic bias is that people do not usually exert an intentional control on linguistic abstraction, nor are they aware of the implications of different types of predicates (Franco & Maass, 1996, 1999; Maass, 1999). For this reason, linguistic intergroup bias is a reliable unobtrusive measure of intergroup discrimination. If linguistic abstraction, as described, is sensitive to motivations of ingroup enhancement, a tendency to use language to favor one' s ingroup should be observed even within groups formed on the basis of minimal criteria (Tajfel, Billig, Bundy, & Flament, 1971). Furthermore, if categorization into artificial groups, as reported by Maass (1999), is too minimal to generate a linguistic bias, it is worthwhile examining what other factors can produce a linguistic distortion in this context.

Group entitativity and intergroup discrimination

Insightful suggestions to address the issue of linguistic discrimination in minimal groups come from the Interdependence Perspective

(Rabbie, Schot, & Visser, 1989), which has emphasized the role of other factors beside mere categorization in provoking intergroup discrimination. According to Rabbie and Lodewijkx (1996), the behaviors of the individuals belonging to social groups vary along an *individual–group* continuum, whose basic dimension is perceived interdependence. Following this model, mere categorization represents a sort of baseline intergroup condition that generates the perception of being potentially dependent on each other within each group. However, factors that increase the salience of ingroup–outgroup categorization may enhance people's awareness of being part of distinct bounded entities. Among these factors, the experience of sharing a common destiny plays a crucial role in making the members perceive their group as more 'real', thus increasing their sense of we-feeling and of identification with the ingroup (Brewer, 1979; Cartwright & Zander, 1968; Lewin, 1948; Rabbie & Horwitz, 1969; Schacter, 1959).

In terms of Donald Campbell's (1958) theorization, the experience of sharing a common fate strengthens the borders between the group as a social entity and what is external to it, and is one of the main factors in the creation of group entitativity. With reference to Campbell (1958), Horwitz and Rabbie (1982) made the 'working assumption' that 'in the minimal intergroup situation, the stronger the perception of the ingroup as an entity, the more strongly will members favor the ingroup' (p. 256). Supporting evidence for this working assumption comes from a study by Gaertner and Schopler (1998), who showed that behavioral and attitudinal bias increased as the perceptions of ingroup entitativity increased.

The issue of group entitativity has recently received a great deal of attention in social psychology. The hypothesis of entitativity put forward by Horwitz and Rabbie (1982) is consistent with the renewed interest in this notion shown recently by researchers from theoretical traditions other than the Interdependence Perspective (Brewer & Harasty, 1996; Hamilton, Sherman, & Lickel, 1998; Lickel et al., 2000; Wilder & Simon, 1998; Yzerbyt, Castano, Leyens, & Paladino, 2000). Hamilton et al. (1998) underlined group organization (leadership, differentiation of group roles, group norms) as a key element in the perception of group entitativity. Lickel et al. (2000) stressed the group dynamic factors (interaction among members, common goals and common outcomes) as antecedents of the perception of group entitativity. Castano, Brewer, and McDonald (2000) showed that negative common fate among group members leads to an increase of perceived group entitativity, which in turn enhances ingroup identification. This finding is in line with Yzerbyt et al.'s (2000) contention that people identify more strongly with highly entitative groups because these groups contribute more easily to the individuals' self-esteem and self-efficacy and provide them with a clear understanding of who they are and of their relationships with others, satisfying their needs for inclusion and differentiation. For all these reasons, highly entitative groups are considered attractive.

However, the contribution most relevant for the purposes of our experiment is the work of Mlicki (1993), who conducted an experiment to examine the link between group entitativity and intergroup discrimination as hypothesised by Horwitz and Rabbie (1982). To this aim, Mlicki (1993) created four conditions of group entitativity by varying the basic minimal group condition of mere categorization (Tajfel et al., 1971), in which participants are assigned randomly to one of two groups. He altered the mere categorization condition in two directions: toward less group entitativity and toward more group entitativity. To diminish the entitativity of mere categorization, Mlicki (1993) introduced a (positive) common fate experience for all participants in the same experimental session before dividing them into two groups; he hypothesized that the subsequent mere categorization manipulation would be less effective in producing intergroup differentiation because of the unifying effect of the preceding common fate experience. In the other two experimental conditions, mere categorization was modified toward more group entitativity. In the visual categorization condition, spatial separation of group members after random assignment to one of the two groups was intended to make

group boundaries more salient and therefore to increase differentiation between them. This manipulation was coherent with Campbell's (1958) contention that proximity among group members is a factor enhancing group entitativity. Finally, in the common fate after categorization condition, following Rabbie and Horwitz's (1969) procedure, all members of one group were exposed additionally to a positive common experience, while all members of the other group were exposed to a negative common experience.

Thus, conceptually common fate prior to categorization represented the least entitative condition, followed by mere categorization and visual categorization, with the most entitative condition being that of common fate after categorization. According to Mlicki (1993), intergroup discrimination would increase from the first to the fourth condition. In this study, as in the majority of the studies carried out with minimal groups, intergroup discrimination was investigated with an explicit measure, based mainly on the allocation of positive resources to ingroup and outgroup members. The findings of this experiment confirmed the author's hypothesis, revealing that ingroup favoritism was stronger in common fate after categorization condition compared to all the other conditions, which did not differ from each other.

The present experiment

In designing our study, we adapted the experimental procedure developed by Mlicki (1993) to our goals. As stated above, the main aim of our contribution was to shed light on linguistic intergroup discrimination in the context of minimal groups. It is this which represents the main innovation of our study. As highlighted earlier, the possibility of detecting instances of linguistic intergroup discrimination in the context of minimal groups depends upon the availability of intergroup behaviors to be described. For this purpose, group members were asked to describe '*typical*' behaviors of minimal group members, that is to say, resource allocations to ingroup and outgroup members. We also assessed whether linguistic intergroup discrimination is augmented by biased (i.e. ingroup favoring) allocations vs. unbiased (fair) intergroup allocations. Second, we wanted to assess the effects of increasing group entitativity on linguistic intergroup discrimination.

Following Mlicki (1993), group entitativity was operationalized at the minimum level by creating a common fate prior to categorization condition, followed by a mere categorization and a visual categorization condition; the maximum level of entitativity was represented by a situation of group common fate. Common fate of all participants prior to categorization, as suggested by Mlicki (1993), should alter categorization in the direction of less group entitativity by decreasing the salience of group categorization. Visual categorization should strengthen group entitativity insofar as it derives from spatial separation between the two groups and proximity among the members of each group (Campbell, 1958). The highest level of group entitativity should be achieved in the common fate after categorization by exposing group members to a common positive or negative experience.

In our experiment the quality of common fate (positive vs. negative) was assessed in both the common fate prior to categorization and the common fate after categorization conditions (cf. Mlicki, 1993). This procedure should allow us to rule out the possibility of intergroup discrimination being a consequence of the positive or negative experience per se, independently of whether it is introduced before or after categorization into groups. Finally, in line with what has been shown by Castano (2004; Castano, Yzerbyt, & Bourguignon, 2003) and Yzerbyt et al. (2000), as a manipulation check on our experimental procedure we measured group identification assuming that it would increase in a linear way as group entitativity increased.

Hypotheses

As regards the main goal of our study, we expected to find systematic differences in the level of abstraction used to describe ingroup and outgroup members. More specifically,

> *Hypothesis 1*: ingroup behavior will be described by employing a higher level of abstraction when using positive sentences and a lower level of abstraction

for negative terms. On the contrary, outgroup behavior will be described with higher abstraction involved in negative terms and lower abstraction involved in positive terms.

As already described, in our experiment intergroup behaviors consisted of biased vs. unbiased resource allocation choices, which participants believed to be adopted by ingroup or outgroup members. In this respect, we expected this factor, which from now onward will be referred to as *target behavior*, to moderate the linguistic intergroup discrimination. Since the equity norm is strongly rooted in our culture and has a strong connotation of social desirability (Platow, O'Connell, Shave, & Hanning, 1995), the description of an equity choice could be expected to be more positive independently of the performer (whether he/she is an ingroup or an outgroup member). Despite the fact that group favoritism may be generally regarded as a socially undesirable behavior, especially in the minimal group settings (Blanz, Mummendey, & Otten, 1997), we think that it would be considered quite acceptable when this allocating strategy is employed by an ingroup member. In the light of this consideration, we advanced the following hypothesis:

Hypothesis 2: more abstract positive terms will be used to refer to an ingroup favoritism choice when performed by an ingroup member, whereas the same choice will be described with more abstract negative terms when performed by an outgroup member. This difference between ingroup and outgroup descriptions will be less marked when descriptions referred to an equity choice.

As for the effects of group entitativity, in line with what has been stated by Brewer (1979), Gaertner and Schopler (1998), Horwitz and Rabbie (1982), Mlicki (1993), and Rabbie and Lodewijkx (1996), our expectation was that:

Hypothesis 3: linguistic intergroup discrimination will significantly rise as a function of increasing levels of group entitativity, that is, it will be highest in the common fate after categorization condition, followed by visual categorization, mere categorization and common fate prior to categorization conditions.

Finally, we considered group identification as a manipulation check of our group entitativity manipulation, with the expectation that:

Hypothesis 4: ingroup identification will increase from the lowest to the highest group entitativity condition.

Method

Overview and experimental design

The experimental design was 4 (Group entitativity: common fate prior to categorization vs. mere categorization vs. visual categorization vs. common fate after categorization; between-participants) × 2 (Target's group membership: ingroup vs. outgroup; between-participants) × 2 (Target's allocation choice: ingroup–outgroup fairness vs. ingroup favoritism; between-participants) × 2 (Valence of the language used by participants to explain the behavior of the target: positive vs. negative; within-participants). The dependent variables were the positive and negative abstraction scores obtained by coding the descriptions of the target's allocation choice and the mean score of identification with the ingroup.

As a first task, participants filled in the allocation matrix. Afterwards, they were presented with a matrix filled in allegedly during the same experimental session by another anonymous participant, and asked to explain his/her allocation choice. Finally, they answered a short ingroup identification questionnaire.

Participants

Altogether, 250 students of Introductory Social Psychology at the University of Bologna participated in this study to fulfil a course requirement. They were tested in groups of 14–16 participants, assigned randomly to conditions. On arriving at the experimental laboratory, the experimenter informed participants that the study was to investigate group decision-making processes.

Procedure

Manipulating group entitativity After the preliminary information about the research aim, participants received a three-page questionnaire. On the first page, participants were assured about the anonymity of their responses, while on the second page they found the category to which

they had been assigned ('Alpha' vs. 'Omega') together with their identification code. The allocation matrix was reported on the third page.

In the *common fate prior to categorization* condition, before opening the questionnaire and getting to know their group membership, participants were told that since a certain amount of money from the research budget was available, coupons of the value of 6 euros had been prepared as a reward for their participation. They were then informed that unfortunately there were not enough coupons for all the people taking part in the experiment. One representative of that session was then asked to flip a coin in order to decide whether the participants attending that experimental session would receive the 6-euro coupons. On the outcome of the flip, participants would either receive or not receive the coupons. In this condition, only at this moment were participants asked to turn the page of the questionnaire in order to find out which category they had been assigned to at random (Alpha vs. Omega).

In the *mere categorization* condition, participants found out the group they had been assigned to by reading it on the second page of the questionnaire. This was the end of group entitativity manipulation. In the *visual categorization* condition, after being assigned to Alpha or Omega groups participants were asked to sit at opposite sides of the room.

Finally, in the *common fate after categorization condition,* after being assigned to Alpha and Omega groups, participants were told that since there was some money available from the research budget, coupons of the value of 6 euros had been prepared as a reward for their participation. However, there were only enough coupons for approximately half of the students taking part in the study. Which group would receive the coupons had therefore to be decided by drawing lots. A representative of each group was called to flip the coin and, while they did so, the other checked that everything was properly done. The members of the 'winning' group then received a 6-euro coupon while the members of the other group did not.

Participants in all conditions then filled in the allocation matrix; they were also asked to give their identification code at the top of the page. The matrix (see Billig & Tajfel, 1973) consisted of 13 boxes, each containing two numbers. The top row of numbers within the boxes were the points to be awarded to an ingroup member, and the bottom row to an outgroup member. The box on the far left (14/14) represented the choice of fairness, while the box on the far right (26/2) represented the choice of maximum ingroup favoritism.

Creating a minimal intergroup behavioral repertoire After the completion of the allocation task, questionnaires were collected and placed on a table located in a corner of the experimental room. Participants were then told that after a few minutes they would receive a second questionnaire, containing a matrix completed by another anonymous student participating in the same experimental session. It was stressed that in no case would they be the addressee of the matrix they were presented with. To make the cover story more realistic, participants were invited to notify the experimenter if this should happen. While the experimenter was giving these instructions, the co-experimenter sat at the table pretending to take one page off each questionnaire and add it to the second questionnaire (the pages containing the allocation matrix, filled in by hand, had actually been prepared before). The second questionnaire was then distributed to participants. On the cover page, participants were instructed to look carefully at the second page, where the matrix was reported. Examples of the matrices used respectively in the fairness condition and in the ingroup favoring condition are showed in Figures 1 and 2.

As it can be seen in Figure 1, in the fairness condition participants were presented with a matrix filled in by the 'target' participant, who they thought had circled the equal points box (14/14). In the ingroup favoring condition (Figure 2), the matrix contained a circle on the maximum ingroup favoring choice (26/2). On the following page of the booklet, participants had five lines to write an explanation of the

The numbers represent the amount of points of appreciation you want to assign to:													
10 Omega	14	15	16	17	18	19	20	21	22	23	24	25	26
4 Alpha	14	13	12	11	10	9	8	7	6	5	4	3	2

Please report the number of points you assigned to the two group members:

Points to **10 Omega** _____
Points to **4 Alpha** _____

Figure 1. Example of the matrix presented to participants in the equity condition to obtain the descriptions of intergroup behavior.

The numbers represent the amount of points of appreciation you want to assign to:													
10 Omega	14	15	16	17	18	19	20	21	22	23	24	25	26
4 Alpha	14	13	12	11	10	9	8	7	6	5	4	3	2

Please report the number of points you assigned to the two group members:

Points to **10 Omega** _____
Points to **4 Alpha** _____

Figure 2. Example of the matrix presented to participants in the ingroup favoritism condition to obtain the descriptions of intergroup behavior.

allocation choice they were presented with. To make sure participants noted the target's group membership, they were required to report their code before writing down the explanation. On the last page of the questionnaire participants completed a three-item identification scale. A collective debriefing session took place at the end of all the experimental sessions.

Dependent variables

Linguistic abstraction Each statement contained in the linguistic descriptions provided by the participants was coded in accordance with the LCM of Semin and Fiedler (1988), distinguishing between descriptive action verbs (DAV), interpretative action verbs (IAV), state verbs (SV) and adjectives (ADJ) .[1] The semantic valence of the predicates (positive vs. negative) was also coded. Coding was done by two independent coders who did not know the participants' experimental condition. The intercoder agreement was 87%.

Identification with the ingroup This measure (α = .78) was formed by three items ('I prefer my group to the other group'; 'If you were going to participate in another experiment, how much would you rather belong to the same group?'; and 'In general I like the other members of my group'). The response scale ranged from 1 (*not at all*) to 13 (*very much*).

Results

Ingroup identification as a manipulation check

In order to test the effectiveness of our group entitativity manipulation, ingroup identification was used as a manipulation check. We assumed that ingroup identification would rise

as a function of increasing group entitativity. In accordance with our prediction, the 4 (group entitativity) × 2 (target's group membership) × 2 (target's allocation choice) analysis of variance (ANOVA) on the composite identification score showed a main effect of group entitativity ($F(3, 242) = 3.56$, $p < .01$, partial $\eta^2 = .04$). Figure 3 shows the means of ingroup identification in the four entitativity conditions. As may be noted, identification grows significantly from lower to higher entitativity conditions. Post hoc comparisons conducted with the Scheffé test revealed that common fate after categorization condition differed significantly ($p < .05$) from common fate prior to categorization condition, while there were no significant differences among the other conditions. There was no interaction effect with the target's group membership or target's allocation choice factors.

Afterwards, simple pair comparisons were conducted in order to test whether the quality of common fate had an impact on ingroup identification. The difference between positive ($M = 6.85$) and negative ($M = 7.78$) common fate prior to categorization was significant, $t(60) = -2.58$, $p < .05$, partial $\eta^2 = .10$), whereas the comparison between positive common fate after categorization ($M = 7.91$) and negative common fate after categorization ($M = 8.50$) did not reach the accepted level of statistical significance ($t(58) = -1.49$, $p = .14$, *ns*).[2]

Linguistic abstraction

To test our hypotheses about linguistic intergroup discrimination, overall positive and negative abstraction scores were computed for each participant by employing a single monotonic weighting scheme whereby weights

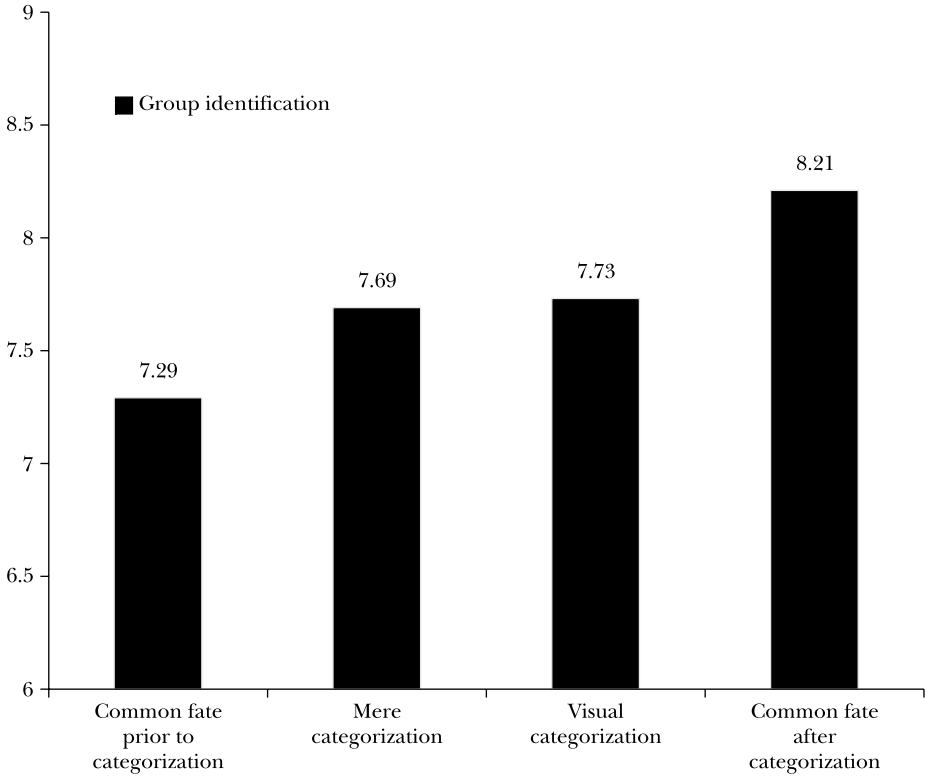

Figure 3. Group identification means as a function of group entitativity.

of 1, 2, 3 and 4 were assigned to DAVs, IAVs, SVs and ADJs respectively. The summed weights were then divided by the total number of terms used. Scores on this abstraction index can range from 0 to 4: the higher the score, the greater the linguistic abstraction. These scores were submitted to a 4 (group entitativity: common fate prior to categorization vs. mere categorization vs. visual categorization vs. common fate after categorization; between-participants) × 2 (target's group membership: ingroup vs. outgroup; between-participants) × 2 (target's allocation choice: ingroup–outgroup fairness vs. ingroup favoritism; between-participants) × 2 (valence of language: positive vs. negative; within-participants) ANOVA.

The analysis produced a significant main effect of valence of language ($F(1, 234) = 61.89$, $p < .001$, partial $\eta^2 = .21$), due to an overall higher abstraction of positive terms ($M = 1.82$) in comparison with negative terms ($M = 0.80$). Second, a significant interaction between target's group membership and valence of language was produced ($F(1, 234) = 31.3$, $p < .001$, partial $\eta^2 = .12$), indicating the presence of a general linguistic bias. Pairwise comparisons between positive and negative abstraction scores revealed that in the descriptions of the ingroup, the positive abstraction score ($M = 2.19$) was much higher than the negative abstraction score ($M = 0.46$), $t(124) = 10.2$, $p < .001$, partial $\eta^2 = .05$). The outgroup positive abstraction score ($M = 1.45$) was higher than the negative abstraction score ($M = 1.17$), but not significantly different from each other ($t(124) = 1.53$, *ns*). Further follow–up analyses were run to compare ingroup and outgroup descriptions. They showed that the ingroup positive abstraction score was significantly higher than the outgroup positive abstraction score ($t(248) = 3.75$, $p < .001$, partial $\eta^2 = .05$), whereas the ingroup negative abstraction score was lower than the outgroup negative abstraction score ($t(248) = -4.03$, $p < .001$, partial $\eta^2 = .06$). As for the target's allocation choice, the ANOVA did not show main or interaction effects of this factor.[3]

Our hypothesis regarding the impact of group entitativity on linguistic discrimination was supported by the obtained Group entitativity × Target's group membership × Valence of language interaction, ($F(3, 234) = 3.31$, $p < .05$, partial $\eta^2 = .04$). Figure 4 shows ingroup linguistic abstraction does not vary across the different group entitativity conditions, revealing the general tendency to describe ingroup members positively and abstractly, together with an infrequent use of negative concrete terms. This evidence is qualified by the nonsignificant interaction Group entitativity × Valence of language on the ingroup abstraction scores ($F(3, 121) = .37$, $p = .78$, *ns*)

However, as shown in Figure 5, group entitativity significantly affected outgroup language. A 4 (group entitativity) × 2 (valence of language) ANOVA on the outgroup abstraction score revealed in fact a significant interaction ($F(3, 121) = 4.48$, $p < .01$, partial $\eta^2 = .10$). Considering separately positive and negative abstraction scores, group entitativity turned out to have a significant effect on positive abstraction scores ($F(3, 124) = 3.96$, $p < .01$, partial $\eta^2 = .09$), which decreased as group entitativity increased. The Scheffé test revealed a significant difference ($p < .05$) between common fate prior to categorization condition and common fate after categorization condition, and between mere categorization and common fate after categorization condition.

Negative abstraction increased, although not linearly, as group entitativity augmented. The effect of group entitativity on outgroup negative abstraction was nearly significant ($F(1, 124) = 2.21$, $p = .09$, partial $\eta^2 = .05$). This is mainly due, as the post hoc comparison revealed, to the marginally significant difference ($p = .09$) between the visual categorization and the common fate after categorization condition.

While the analyses reported above were performed on the total sample, we were also interested in testing whether linguistic intergroup discrimination would occur in each group entitativity condition. Of particular interest was whether a linguistic bias would appear in the standard minimal intergroup situation, that is to say, mere categorization. The ANOVA 2 (target's group membership) × 2 (valence of language) performed selecting only the mere categorization condition revealed a marginal interaction between target's group membership

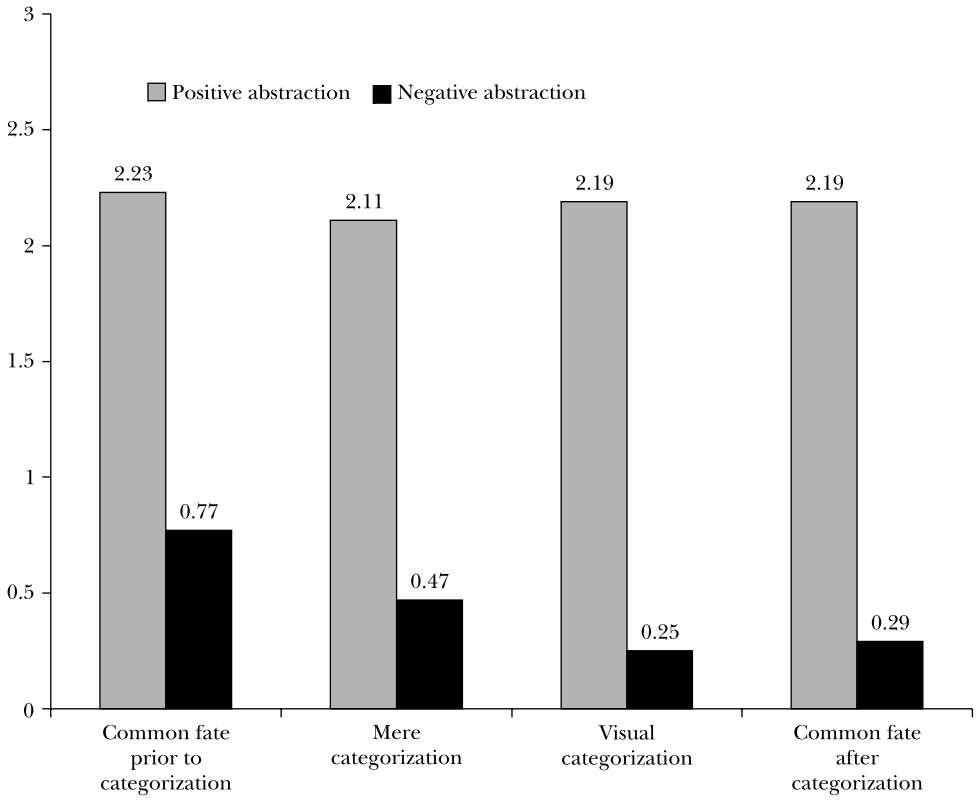

Figure 4. Positive and negative ingroup abstraction scores as a function of group entitativity.

and valence of language ($F(1, 62) = 3.09$, $p = .08$, partial $\eta^2 = .05$), showing the tendency to use biased intergroup language. Further ANOVAs were performed separately on the three remaining entitativity conditions. As regards the common fate prior to categorization condition, the analysis produced a marginal interaction ($F(1, 61) = 3.22$, $p = .07$, partial $\eta^2 = .05$). The interaction was significant in the visual categorization condition ($F(1, 61) = 4.57$, $p < .05$, partial $\eta^2 = .07$), and in the common fate after categorization condition ($F(1, 58) = 35.34$, $p < .001$, partial $\eta^2 = .38$). Thus, these additional analyses showed that a certain degree of linguistic discrimination is also present in the common fate prior to categorization and in the mere categorization condition, but that it becomes relevant in the more entitative conditions, that is to say, visual categorization and common fate after categorization.

Quality of common fate Finally, we assessed whether the quality of common fate had an impact on language use. The 2 (quality of common fate: positive vs. negative) × 2 (target's group membership) × 2 (target's allocation choice) × 2 (valence of language) ANOVAs conducted on the conditions of common fate prior to and common fate after categorization separately did not produce any significant effect of this factor.

Correlational analyses Correlation analyses among ingroup identification and the positive and negative abstraction scores did not show any significant correlation between these variables.

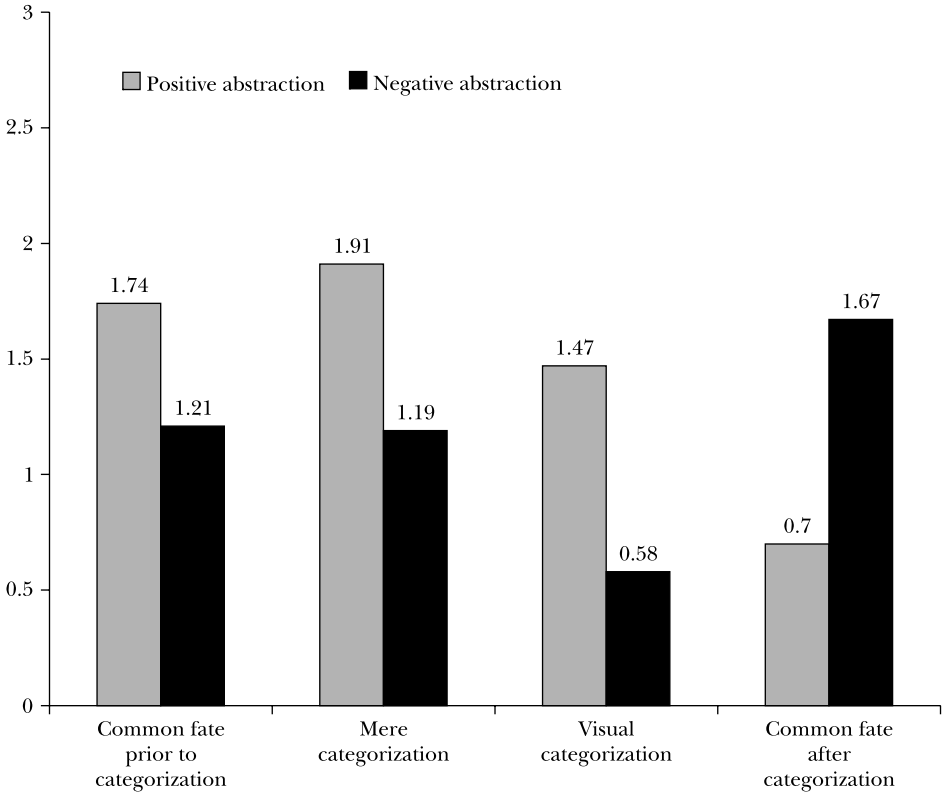

Figure 5. Positive and negative outgroup abstraction scores as a function of group entitativity.

Discussion

The main goal of our contribution was to test whether linguistic intergroup discrimination can take place within minimal groups, and to assess the impact of group entitativity on this phenomenon. Our contention was that to the extent that intergroup behaviors (even minimal ones) are available in this context, they can be described and therefore they can be used as a basis for linguistic intergroup discrimination. To this end, participants were led to describe the typical intergroup behavior performed in the minimal group paradigm, that is to say, fellow ingroup and outgroup members' allocation choices. We assumed that descriptions of ingroup and outgroup members would reveal a biased use of linguistic abstraction, with ingroup members' descriptions being characterized by more abstract positive terms and more concrete negative terms than those of outgroup members. We also expected target's allocation choice to moderate the linguistic bias. Third, we expected that linguistic intergroup discrimination would increase as a function of increasing levels of group entitativity. We conceived ingroup identification as a check on the effectiveness of our group entitativity manipulation (Castano, 2004; Castano et al., 2003; Yzerbyt et al., 2000).

In general terms, the evidence obtained showed that the procedure we developed to produce intergroup behaviors as the object of the linguistic descriptions was very effective. This is revealed by the fact that we found evidence of linguistic intergroup discrimination even in

the less entitative group conditions, that is to say, common fate prior to categorization and mere categorization. Overall, ingroup members were described with more abstract positive terms and more concrete negative terms than outgroup members. Linguistic discrimination was strengthened by the increase of group entitativity. The power of this factor was particularly strong on the outgroup descriptions, which, especially in the common fate after categorization condition, were characterized by a predominant use of negative abstract terms and a small number of positive concrete terms.

The general pattern of results on linguistic discrimination implies a stable linguistic ingroup bias across conditions and an increase of outgroup biased language as group entitativity increased. The type of intergroup behavior to be described (i.e. fair or ingroup favoring behavior) did not produce any significant effect. This might be due to the fact that participants did not perceive fair intergroup behavior as normatively more acceptable than ingroup favoring behavior. In our opinion, the lack of an effect of the type of choice can be interpreted as further evidence of the role played by the increase of group entitativity. Indeed, independently of the type of choice, and therefore of the possible influence of social norms, ingroup behaviors were generally described in a more positive way, while outgroup behaviors, in the condition of higher entitativity, were described in a more negative way. This was true even when the equity between the two groups had been respected. Finally, group identification increased linearly as group entitativity increased, providing support for the effectiveness of our experimental manipulation.

Taken together, the results obtained constitute a genuine innovation in the field of minimal group studies insofar as they highlight the phenomenon of linguistic intergroup discrimination in this domain. Whereas Maass (1999) was inclined to rule out the possibility of observing the LIB within minimal groups, we have been able to show that to the extent that intergroup behaviors are available as objects of description, linguistic intergroup discrimination takes place.

Theoretically, it was particularly interesting to examine whether linguistic discrimination would emerge in the standard minimal intergroup condition, that is to say, mere categorization. The analyses we performed separately on the four group entitativity conditions revealed, interestingly, that a certain degree of linguistic discrimination was present in the less entitative conditions, that is mere categorization and common fate prior to categorization. Indeed, even though the interaction between target's group membership and valence of language was only marginally significant in the mere categorization condition, ingroup and outgroup members were described using differential levels of abstraction.

These effects confirm at the linguistic level Diehl's (1990) contention that minimal groups are 'maximal' for intergroup discrimination. In this respect, it is important to note that the manipulation we developed to obtain a 'behavioral repertoire' as the object of the linguistic descriptions probably transformed minimal group conditions into more meaningful situations. In fact, asking the participants to reflect about other group members' choices could have led them to be more aware of intergroup behaviors and to perceive the two groups as characterized by a history, at least a 'minimal history' of intergroup relations. In the more entitative conditions, linguistic discrimination increased: in fact, group members' descriptions revealed a more biased use of language in the visual categorization and especially in the common fate after categorization condition.

Group entitativity had a strong effect on outgroup descriptions. In fact, when group entitativity increased, positive terms used to refer to the target outgroup member tended to be more concrete, whereas negative terms were more abstract. On the contrary, ingroup descriptions revealed, in general terms, the presence of a positive abstract language along with the presence of some negative and concrete terms, but the ingroup language was not affected by the increase of group entitativity.

The difference between ingroup and outgroup descriptions in this experiment may reflect the existence of a more positive image of the ingroup,

a phenomenon defined by Gaertner, Dovidio, Anastasio, Bachman, and Rust (1993) as 'pro ingroup bias' (see also Maass & Schaller, 1991). Evidence for such a default in ingroup favoritism comes from experiments using affective priming tasks, which indicated an ingroup positivity effect in the reaction times for positive versus negative words presented after ingroup primes, but no effect for outgroup primes (Perdue, Dovidio, Gurtman, & Tyler, 1990). In the same vein, Otten and Wentura (1999) showed a positive ingroup default associated with groups established by a minimal categorization procedure. Following this reasoning, we may say that the linguistic patterns we found in this experiment are driven by such a positive ingroup default, resulting in fairly positive and abstract descriptions of ingroup members in all conditions. Variations in group entitativity were apparently not large enough to affect this already strong positivity effect in ingroup descriptions. Descriptions of outgroup members, which in the less entitative condition were characterized by a more concrete positive language and a more abstract negative language than ingroup descriptions, were clearly more sensitive to variations in group entitativity, and seem to reflect an increasing need for creating a stable negative image of the outgroup as entitativity increased.

This significant effect of group entitativity on the linguistic discrimination of the outgroup is also relevant in relation to the distinction between 'ingroup love' and outgroup derogation reported in the literature. As Brewer's (1979, 1999) exhaustive reviews have documented, the intergroup bias is particularly reflected on the tendency to favor the ingroup rather than in an active outgroup derogation. This led the author to contend that the effect of group categorization is to differentiate the ingroup from the outgroup instead of the outgroup from the ingroup. In our experiment, group entitativity clearly affected outgroup derogation itself: when entitativity increased not only did people tend to contextualize more the positive characteristics attributed to outgroup members but, more importantly, they employed more abstract negative terms, thus implying that their descriptions could be more generalized.

These results may be due to the fact that the use of an unobtrusive measure such as linguistic abstraction allows the observation of behaviors of direct discrimination toward the outgroup, behaviors usually inhibited by social desirability concerns. Moreover, it could be argued that in conditions of increased group entitativity, people consider this pattern of behavior as more normatively acceptable, while in conditions of lower entitativity the weakest perception of belonging to a group drives them to see it as unjustifiable. Furthermore, this interpretation is consistent with the normative explanation given by Mummendey et al. (Blanz et al., 1997; Otten & Mummendey, 2000) for the so-called positive–negative asymmetry in social discrimination. We know from a large amount of research that mere categorization does not usually generate intergroup discrimination in the allocations of negative outcomes, that is to say, when favoring the ingroup would imply direct infliction of an unpleasant treatment to outgroup members (Gardham & Brown, 2001; Mummendey et al., 1992; but see Reynolds, Turner, & Haslam, 2000, for a critical stance). While several researchers have identified in the inferiority of group status and/or group size the *aggravating* conditions necessary to restate a certain level of ingroup favoritism, we think that an entitativity approach to intergroup behavior may help to understand the conditions under which intergroup discrimination takes place when negative resources are at stake.

Finally, it is worth mentioning that the analyses performed to control for the quality of common fate did not reveal any effect of this factor on linguistic discrimination. However, it produced a significant difference on ingroup identification in the common fate prior to categorization condition, due to the fact that participants were more identified with their group when they experienced a negative fate. The same tendency was present in the common fate after categorization condition, though in this case not significant. At first sight, this result may resemble Turner, Hogg, Turner, and Smith's (1985) finding that failure and defeat increase group cohesion. However, while Turner et al.'s (1985) finding was limited to a situation in

which group members were highly committed to the group or had high choice about doing the group task, it is important to underline that in our experiment participants were not in control of their fate and therefore they could not feel personally responsible for it. Thus, the evidence we gathered seems to reflect a stronger we-feeling experience (Janis, 1968) determined simply by the negative common fate. This assumption obviously requires further investigation.

This study has some limitations. Although the effectiveness of our group entitativity manipulation is supported by the increase of the identification with the ingroup, future studies should make use of direct measures of group members' *perception* of group entitativity (see Gaertner & Schopler, 1998). Furthermore, the lack of checks on the effectiveness of manipulations of target's behavior did not allow us to have direct control over the way participants perceived the two different allocation choices (equity vs. ingroup favoritism). It is important to note that we do not regard as problematic the absence of correlation between linguistic abstraction and identification. This result is commonly found in the research on the LIB (Maass, 1999; Maass et al., 2000) and it is generally attributed to the varying degrees of possible intentional control exerted over the two different measures: while group identification is generally under individuals' intentional control, linguistic abstraction is not easily subjected to control.

As we have already underlined, linguistic measures for their unobtrusive nature can be successfully adopted to study intergroup discrimination, especially in those situations in which social desirability concerns may inhibit overt outgroup derogation. In this regard it is worthwhile adopting a linguistic approach to investigate the consequences of the factors that enhance intergroup conflicts (e.g. status, size and power differentials), in order to overcome individuals' reticence in demonstrating politically incorrect behavior. Moreover, an entitativity approach may be useful and profitable for studying the conditions underlying intergroup discrimination. It may be used for example to identify the conditions sufficient to generate intergroup discrimination when negative stimuli are at stake (Otten & Mummendey, 2000). Lastly, it is interesting to look further at the effects of the quality of common fate. As we said above, though no differences were found as regards linguistic discrimination, evidence concerning identification with the ingroup seems to suggest that negative experiences are particularly effective in bringing the members of a group closer.

In sum, the findings of our experiment provide initial evidence of linguistic discrimination in the realm of minimal groups, demonstrating that linguistic differentiation may emerge even within this context. Moreover, they show that mere categorization can be enough to trigger a linguistic bias, but underline the crucial role played by group entitativity in increasing intergroup discrimination.

Notes

1. Only sentences referred to the target participant were coded. Examples of the sentences we coded were: 'He *circled* the 13/13 choice' (DAV); 'He *favored* the member of his group' (IAV); 'He *preferred* the member of his group' (SV); 'He was *impartial*' (ADJ).
2. In order to create a minimal behavioral repertoire as the basis for the linguistic intergroup differentiation, during the first part of each experimental session participants allocated points of appreciation to ingroup and outgroup members. Although filling in a single matrix can hardly be considered an exhaustive measure of intergroup differentiation, the effect of group entitativity on the allocation scores was checked. To this aim, participants' choices on the allocation matrix were scored 1 (*equity*) to 13 (*maximum ingroup favoritism*). A one-way ANOVA was performed, with group entitativity as the independent variable. The analysis did not reveal any significant difference between entitativity conditions (common fate prior to categorization, $M = 4.22$; mere categorization, $M = 4.17$; visual categorization, $M = 4.10$; common fate after categorization, $M = 3.85$). There was no correlation between allocation choice and ingroup identification.
3. Even though no effect of the target's allocation choice (ingroup favoritism vs. equity) on linguistic abstraction was revealed, we entered participants' own allocation choice

(1 = 14/14 to 13 = 26/2), as a covariate variable in a 4 (group entitativity) × 2 (target's allocation choice) × 2 (target's group membership) × 2 (valence of language) ANOVA on linguistic abstraction scores, to test whether linguistic abstraction was affected by participants' own allocation choice. The analysis showed that there was no relationship between the covariate and the dependent variables.

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